

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 13-21 and 23 -26 are in the case.

I. DRAWING

The Action asserts that the subject matter of the present application admits of illustration by a drawing to facilitate understanding of the invention. In response, attached is a Figure illustrating the claimed process. The Figure is based on the disclosure at page 5. The specification has been amended at page 5 to include the reference numerals. No new matter is entered.

II. CLAIM OBJECTIONS

Claims 13, 15, 16, 17, 18, 20 and 21 have been objected in light of the references to "particulate matter" and "diluent". In response, the word "said" has been inserted where appropriate before each recitation of "particulate matter" and "diluent".

Claims 23 and 24 have been objected to in view of the recitations of "a polymerization reactor" and "a continuous polymerization reactor". In response, claim 24 has been amended to specify that the mass flow of catalyst to a polymerization reactor "operating continuously" varies by less than 10% during filling of the mixing tank. Withdrawal of the claim objections is respectfully requested.

III. THE FORMAL REJECTION

Claims 14, 20, 22, 23 and 24 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The rejection is respectfully traversed.

Claims 14 and 24 have been rejected in view of the recitation of preferred features. In response, claims 14 and 24 have been amended to delete the exemplified subject matter and this is now resented in new dependent claims 25 and 26. No new matter is entered.

Claim 20 has been rejected in light of the recitation "the vessel" in line 2. In response, claim 20 has been amended to provide proper antecedent basis of the vessel.

Claim 22 has been rejected in light of the recitation "the slurry tank" in line 2. In response, and without conceding to this rejection, claim 22 has been canceled without prejudice..

Claims 23 and 24 have been rejected in view of the limitation "the mass flow of catalyst" in line 2. In response, claim 23 has been amended to obviate this objection.

Withdrawal of the formal rejection is now believed to be in order. Such action is respectfully requested.

IV. THE ANTICIPATION REJECTION

Claims 13-23 rejected under 35 U.S.C. 102(b) as being anticipated by CELANESE Corp (GB 896,786, IDS). The rejection is respectfully traversed.

Claim 13 claims a process for providing a flow of particulate matter to a reactor. The process comprises intermittently adding the particulate matter and a diluent to a mixing tank, and continuously withdrawing a slurry of the particulate matter in the diluent from the mixing tank for introduction into the reactor. Prior to each addition of the particulate matter and the diluent to the mixing tank, the concentration of the particulate matter in the diluent already in the mixing tank is measured or calculated, and the amount of the particulate matter and the diluent subsequently added is measured so as to achieve the same concentration at the end of the addition as that measured or calculated prior to the addition.

The Action asserts that GB '786 discloses intermittently adding said particulate matter and a diluent to a mixing tank. Applicants do not agree with this. Claim 13 specifically requires intermittent feeding of the catalyst and diluent into the mixing tank whereas, in GB '786, the feed of both is continuous (see e.g. claim 1 of GB '786 which refers to continuously feeding the catalyst, and page 1, line 88 - page 2, line 1 which refers to continuously feeding the solvent). It is not seen where in GB '786 it is stated that the catalyst and solvent are fed into the surge tank intermittently.

While it is known to feed a mixture of dry solid particulate catalyst and diluent to a catalyst storage tank for thorough mixing before injection in controlled amounts into a reaction vessel for contact with the monomer reactants (as indicated in the present specification), it is also explained in the present application that the disadvantage with this method is that because the input of catalyst and diluent into the mixing tank is continuous, and the discharge of slurry from the mixing tank into the reactor is also continuous, it is not possible to know the precise concentration of the catalyst in the

slurry which is discharged at any particular point. Therefore, this must be estimated, based on the density of the slurry, which can itself vary with temperature and pressure.

The present invention avoids the above problems by adding the diluent and particulate matter to the mixing tank intermittently, and determining the concentration prior to each addition, so that the concentration after addition is also known. This is explained in detail on pages 2-3 of the specification.

The invention as claimed is clearly not disclosed GB '786. Withdrawal of the anticipation rejection is respectfully requested.

V. THE OBVIOUSNESS REJECTION

Claim 24 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over GB '786. The rejection is respectfully traversed.

The present invention is not only concerned with intermittent feeding. In addition, the present invention is about the combination of intermittent feeding with the determination of concentration prior to each feed, as recited in claim 13. It is this combination which is the basis of the advantage of the present invention, and there is nothing in the prior art discussing either the problem of determining slurry concentration during continuous feeding, or the solution which constitutes the present invention as recited in claim 13.

Based on the above, it is clear that one of ordinary skill would not have been motivated to arrive the presently claimed process based on GB '786. GB '786 does not give rise to a *prima facie* case of obviousness. Withdrawal of the obviousness rejection is respectfully requested.

WALWORTH
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Favorable action is awaited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Leonard C. Mitchard/

Leonard C. Mitchard
Reg. No. 29,009

LCM:iff
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100
Attachment: Figure